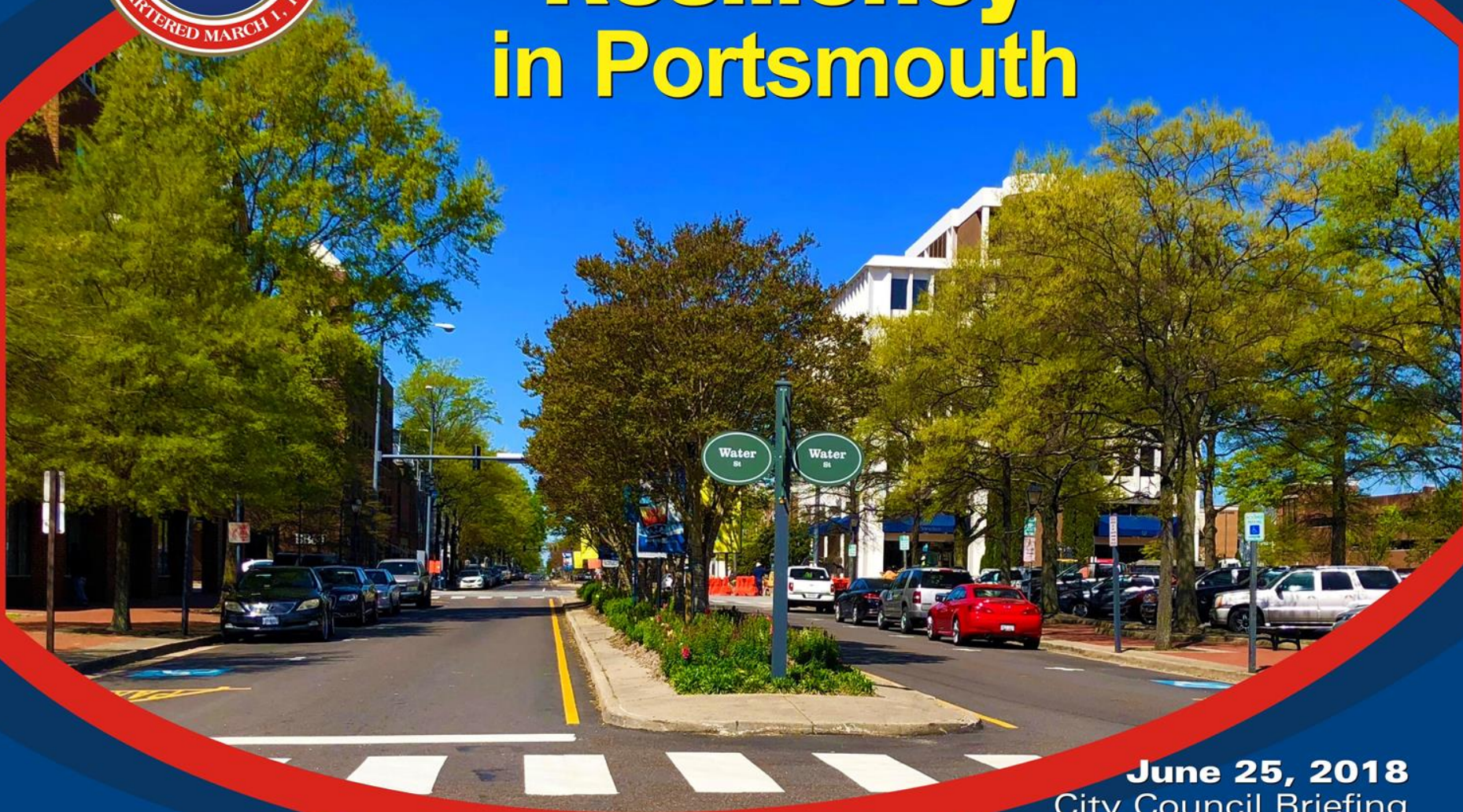




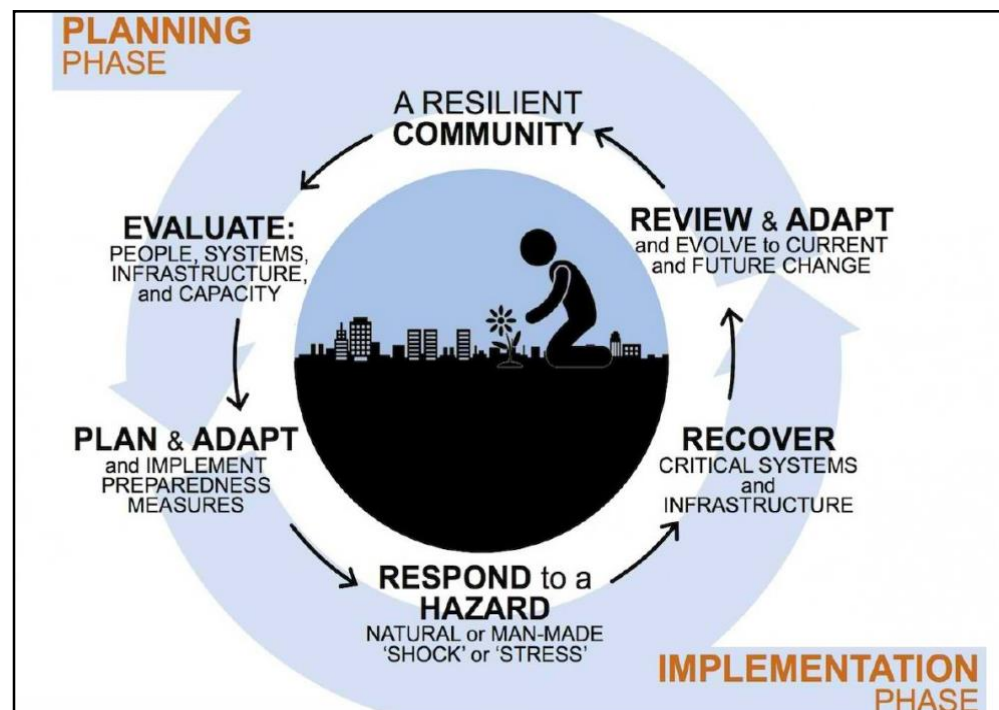
# Resiliency in Portsmouth



**June 25, 2018**  
City Council Briefing

# Purpose of Briefing

- State of Portsmouth Resiliency Efforts
  - Planning/data gathering
  - Comprehensive Plan update
  - Implementation efforts
  - Future work

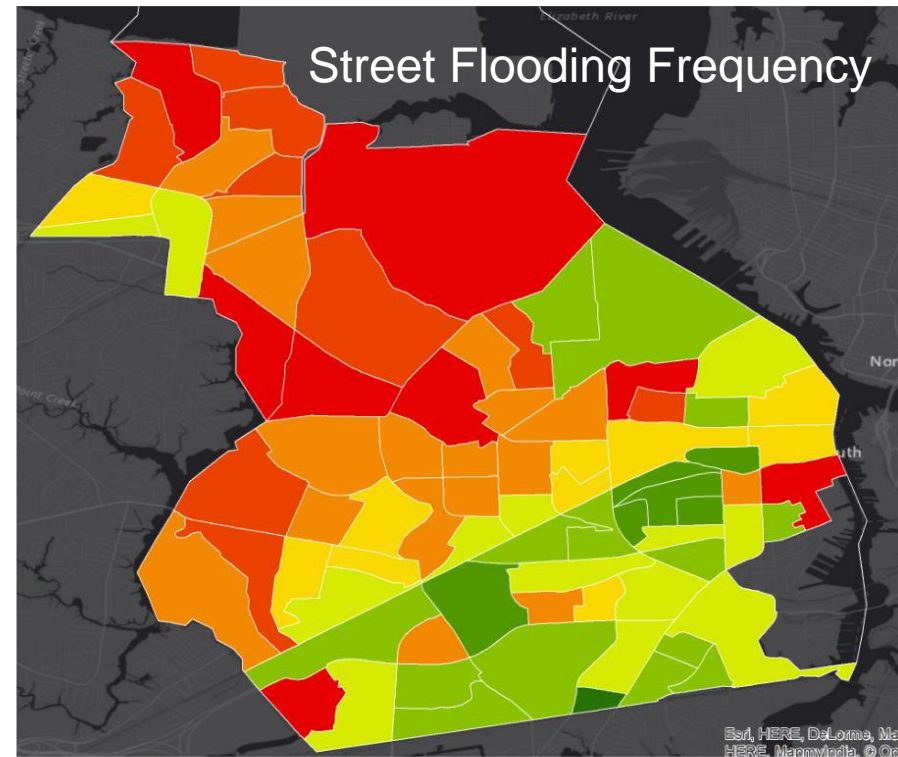




# Planning/Data Gathering

- **VMASC Survey**

- Scientifically valid survey of 1,978 households (2015)
- Results tabulated and geocoded
- Key Findings:
  - Recurrent flooding, not sea level rise, is bigger immediate AND long-term danger
  - Flooding is hurting everyone, but especially low-income population
  - Overwhelming percentage (70%) of population believe in significant sea level rise in the future



# Planning/Data Gathering

- **Comp Plan Update**

- Resiliency most critical of the four vision pillars
- Specifically acknowledges reality of climate change and sea level rise (best practice, also state requirement)
- Updated strategies/tactics to make Portsmouth more resilient
  - Mitigating impacts of climate change – plans, ordinance, policies
  - Economic resilience – budgeting best practices, diversified economy
  - Position and protect critical infrastructure – evacuation routes, city facilities, etc.

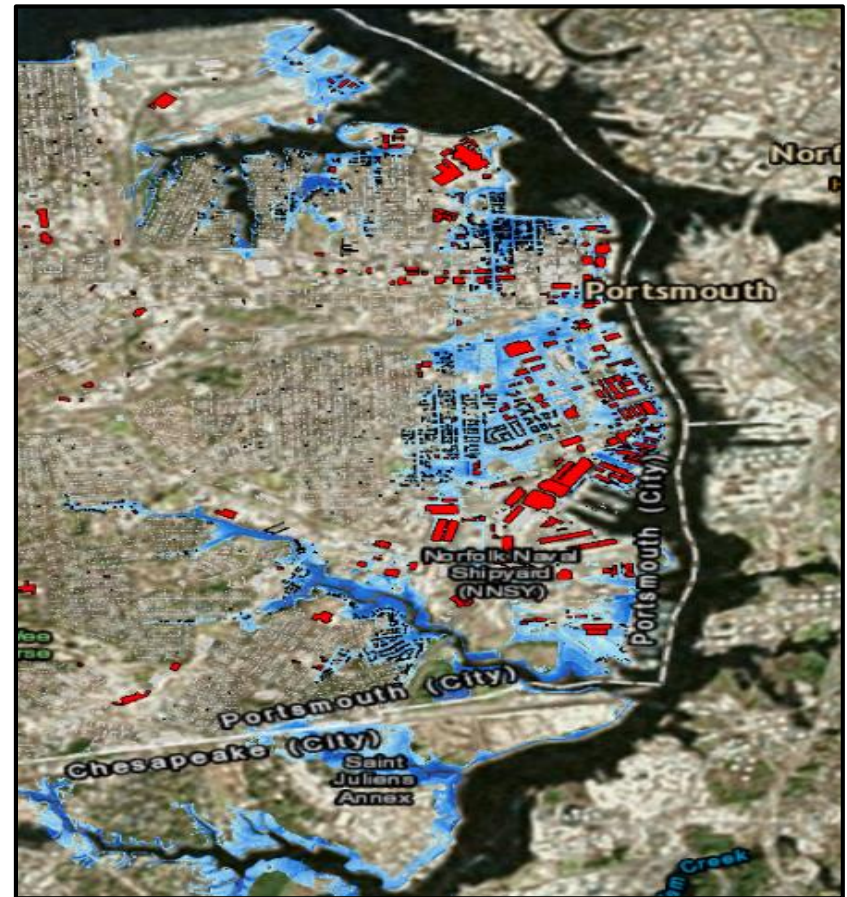


# Planning/Data Gathering

- **VIMS Studies**

- Very detailed model of flood location/depths, based on historical storms
- Models can be run to incorporate different levels of storm surge and sea level rise
- Identifies structures that would flood under different scenarios
- With model built, can easily be rerun based on our needs

2040 – Isabel + .7' SLR



# Implementation Efforts

- Floodplain Management Plan
- Updated FEMA maps
- Flood mitigation strategies
- Seawall replacement
- Tidegate replacements and improvements
- Stormwater Management Program



# Implementation Efforts

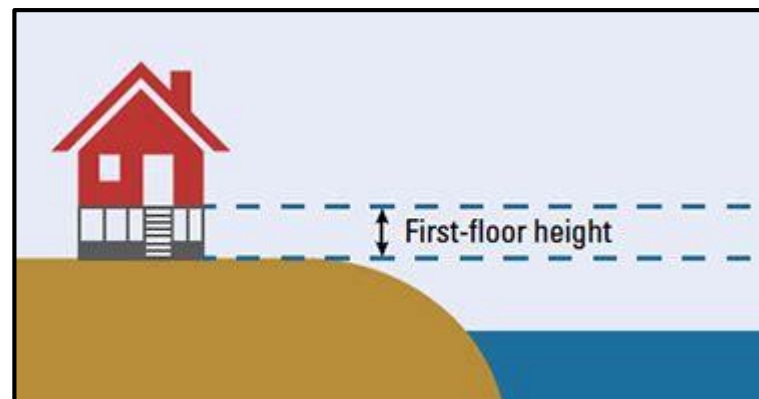
- **Community Rating System (CRS) participation**
  - Implementing FEMA-recommended best practices to help citizens prepare for and protect themselves from flooding
  - Current CRS Class 7 provides 15% reduction in flood insurance premiums for eligible policies
  - Recognized leader in Virginia

CRS Classes and Premium Discounts			
Class	Points	SFHA	Non-SFHA
1	4,500	45%	10%
2	4,000	40%	10%
3	3,500	35%	10%
4	3,000	30%	10%
5	2,500	25%	10%
6	2,000	20%	10%
7	1,500	15%	5%
8	1,000	10%	5%
9	500	5%	5%
10	< 500	0	0



# Implementation Efforts

- Collaborating with Army Corps of Engineers to obtain first floor elevations of residential structures
- Collaborating with HRPDC to assess existing elevation data along with the city's building data to create a database of first floor elevations





# Future Work

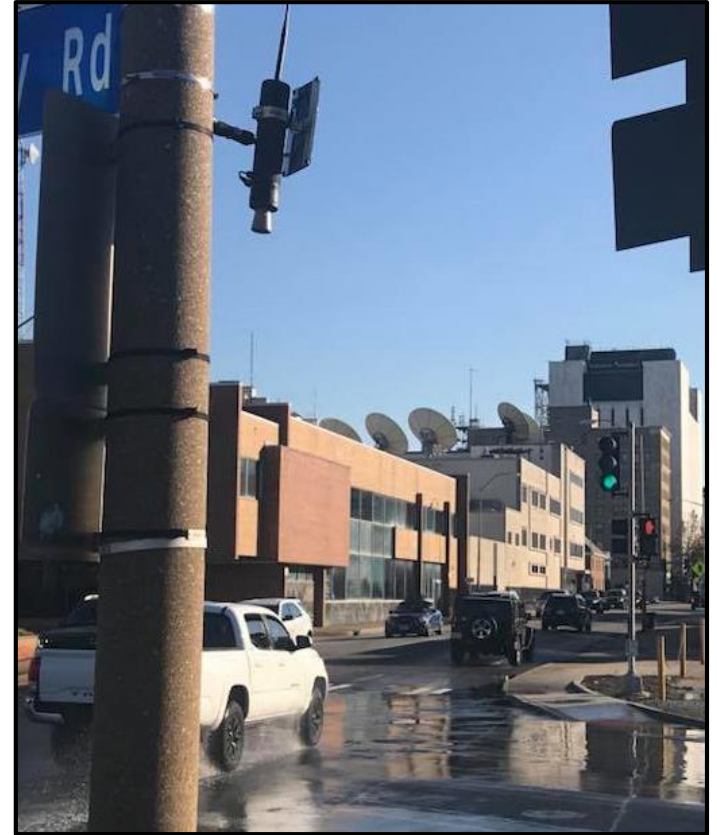
- **Joint Land Use Study**
  - Collaboration between Portsmouth, Chesapeake, Hampton Roads Planning District Commission, and the Navy
  - Goal of ensuring compatible land uses between military and localities in the future
  - Special emphasis on resiliency and sea level rise
    - Flooding of transportation corridors, threat of climate change/sea level rise, etc.



# Future Work

- **Installation of flood sensors**

- Partnering with Green Stream Technologies
- Placement of ultrasound transmitters on polls/signs to measure flood depths in street locations, report data in almost real-time
- 13 identified locations
- Open data source for public safety, residents, universities/research institutions



# Future Work

- Contracting with resiliency on-call consultant (Arcadis)
  - Retain specialized firm to assist with resiliency efforts
    - Data gathering
    - Assessment of policies and design standards/specifications
    - Drafting of city-wide resiliency plan (comp plan recommendation)
    - Problem/solution identification
    - Help with securing grant funding
    - Designing of projects

# Future Work

- **Engineering Projects**

- Court and Green Streets infrastructure pilot project
- Olde Towne Pump Station
- Downtown Stormwater Park







Q&A